on inoculation. This form remained absolutely fixed after daily subculture for more than eighty days; but, though stable *in vitro, in vivo,* after passage through an animal, Gram-positive coccoid forms made their appearance, and subsequently, after subculture in broth, a certain number of bacillary forms, approximating to typical anthrax, were obtained. These experiments open up wide possibilities in the transformation of micro-organisms.

R. T. Hewlett.

NOTES.

The first of the two annual soirees of the Royal Society will be held in the rooms of the society at Burlington House on Wednesday, May 13.

The twenty-second James Forrest lecture of the Institution of Civil Engineers will be delivered on Tuesday, May 5, by Mr. F. W. Lanchester, upon the subject of "The Flying Machine from an Engineering Standpoint."

Prof. C. S. Sherrington, Waynflete professor of physiology in the University of Oxford, has been elected a member of the Royal Danish Academy of Sciences, in the class of natural sciences.

The death is announced, at fifty-eight years of age, of Prof. Adolf Fischer, director of the Museum for Asiatic art, founded last October at Cologne, and consisting almost entirely of collections made by Prof. Fischer himself during repeated journey to the Far East.

The death on March 19 is announced of Prof. G. Mercalli, one of the leading Italian seismologists. Mercalli, who was born at Milan in 1850, is known chiefly for his researches on regional seismology, for his observations on Vesuvian phenomena, and for his scale of seismic intensity, which, in Italy, has displaced the widely used Rossi-Forel scale. In conjunction with Prof. T. Taramelli, he issued the principal reports on the Andalusian earthquake of 1884 and the Riviera earthquake of 1887. In 1897, were published his valuable monographs on the earthquakes of Liguria and Piedmont, and of southern Calabria and the Messinese district. At the time of his death he was director of the Vesuvius Observatory and professor of seismology in the University of Naples.

Two articles on the work of the late Prof. Milne have appeared this month, one by Dr. C. Davison, in *Science Progress,* the other by Comte de Montessus de Ballore, in the Bulletin of the Seismological Society of America (vol. iv., pp. 1–24). The former contains a brief account of his life and a summary of the principal work accomplished by him. The latter is more bibliographical in form. Milne's papers are classified and briefly described under fourteen headings, such as earthquake-catalogues, earth tremors and pulsations, aseismic buildings and practical seismology, relations between earthquakes and variations of the vertical and changes of latitude, etc. Both writers claim for Milne the chief share in the growth of seismology.

The twelfth annual meeting of the South African Association for the Advancement of Science will be held at Kimberley from Monday, July 6, to Saturday, July 11, inclusive, under the presidency of Prof. R. Marloth. The sections and their presidents will be as follows:—A, Astronomy, Mathematics, Physics, Meteorology, Geodesy, Surveying, Engineering, Architecture, and Irrigation, Prof. A. Ogg; B, Chemistry, Geology, Metallurgy, Mineralogy, and Geography, Prof. G. H. Stanley; C, Bacteriology, Botany, Zoology, Agriculture, Forestry, Physiology, Hygiene, and Sanitary Science, Prof. G. Potts; D, Anthropology, Ethnology, Education, History, Mental Science, Philology, Political Economy, Sociology, and Statistics, Prof. W. Ritchie.

The precise physical cause which has brought the publicity of newspaper paragraphs to the shrinkage of the Caspian Sea must be, pending the official investigation by Prof. Shokalski, a matter for conjecture. That the surface of the sea stood formerly, and at no remote geological date, at a much higher level, and that its extent was much greater, is well known. Again, the level is subject to recognised fluctuations, both annually and over longer periods. The discharge of the several great rivers into the sea strives constantly but often unsuccessfully to keep up with the loss by evaporation. The level usually stands highest in the middle of the year, and lowest at the beginning. As to the fluctuations of longer period, observations extending from 1851 to 1885 showed maxima of height in 1868–69, in 1882, and in 1885, and minima in 1853 and 1873; these oscillations appear to have had an extreme range of some 42 in. The present fall may be associated with this phenomenon; a scientific investigation towards the close of last century led to the conclusion that no perceptible permanent shrinkage was in progress.

A summary of the weather for the first three months of the year has been given by the Meteorological Office in its Weekly Weather Report for the period ending April 4. The mean temperature for the whole period is shown to be in excess of the average in every district of the United Kingdom. In the east and north-east of England the excess of temperature amounted to 3°, and in the midland counties and in the south-east, north-west, and south-west of England the excess was 2°. In all other districts which comprise Scotland, Ireland, and the Channel Islands, the excess of temperature was only 1°. There was an excess of rainfall over the entire kingdom except in the north-east of England, where the fall was only 95 per cent. of the average. In the south-east of England the rainfall for the three months was 160 per cent. of the average, in the east of England 145 per cent., in the Channel Islands 143 per cent., in the south-west of England 142 per cent., in Ireland, north and south, 140 per cent., and in the east and west of Scotland 122 and 123 per cent. respectively. In the midland counties the fall was only 107 per cent. of the average. There was a slight deficiency of sunshine over the whole kingdom, except in the north of Scotland, where there was a slight excess. At Greenwich the mean temperature for the three months to the end of March was 42·5°, which is 2·5° in excess of the average, and the temperature was above the normal on fifty-seven days out of the ninety. The aggregate rainfall was 6·92 in., which is 142 per cent. of the average, and is 2·05 in. above the normal. The duration of sunshine was 216 hours, which is an excess of 29 hours.

THE first course of a series of lectures arranged by the National Academy of Sciences, Washington, under the William Ellery Hale foundation, is being delivered by Sir Ernest Rutherford, at the National Museum, Washington, on April 21 and 23. The series of lectures is to cover several years on the general subject of evolution, the intention being to present a clear outline of the broad features of inorganic and organic evolution in the light of recent research. The subjects of Sir Ernest Rutherford's lectures are the constitution of matter and the evolution of the elements. The second course in the evolution series will be given at the autumn meeting of the academy by Dr. W. W. Campbell, director of the Lick Observatory; and a distinguished European geologist will be invited to give the third course at the annual meeting of the academy next year. Taking the earth from the hands of the astronomer, he will show how its surface features have been altered in the process of time. Later lectures, preserving the continuity of the series, will then enter the field of organic evolution and illustrate the bearing of recent investigations in palæontology, zoology, and botany on the evolution of plant and animal life. The evolution of man will form the subject of another course, and the series will close with an account of the rise of the earliest civilisations, coming into touch with the modern times in the life of the Nile Valley. In all cases the lectures will be given by leading European and American investigators, whose personal researches have contributed largely towards the development of the fields of science which they represent.

THE second reading of a Bill to prohibit experiments on dogs was carried in the House of Commons on Friday last, April 17, by a majority of forty-two, the voting being 122 for the second reading and 80 against. It was stated on behalf of the Government that an amendment will be moved in Committee to abolish the proposed prohibition and to allow experiments only in cases where no other animal but a dog is available for the purpose. The Bill was brought in by Sir F. Banbury, one of the members for the City of London. The motion for the second reading was seconded by Colonel Lockwood, member for the Epping Division of Essex. Mr. Rawlinson, Cambridge University, moved the rejection of the Bill; and the amendment was seconded by Sir P. Magnus, London University, and supported by Sir H. Craik, Glasgow, and Aberdeen Universities. Before the second reading was taken, a memorial signed by more than three hundred eminent physicians, surgeons, and other scientific investigators, protesting against the measure, was addressed to the Home Secretary. The memorial is in the following terms:—"We desire to express to you our strong conviction that the Dogs Protection Bill, which is put down for second reading on Friday, 17th inst., would inflict very severe injury, not only on medicine and surgery, but also on the study of the diseases of animals. We think that we have some right to ask you to oppose this attack on the advancement of medical science and practice; especially as the Final Report of the Royal Commission on Vivisection does not advise the prohibition of experiments on dogs. We are absolutely certain that such experiments are necessary for the complete study of many problems of physiology, pharmacology, and pathology."

THE discovery of a prehistoric workshop floor, with flints, and other fragments, was incorrectly said in a note last week (p. 169) to have been made at St. Albans, instead of Ipswich, though the latter place was mentioned later in the paragraph.

IN the *Times* of April 11 Mr. H. St. George Gray gives his final report of the results of excavations at Maumbury Rings, Dorchester. The great earthwork has now been investigated. In prehistoric times there existed an immense circular ditch, having a medial diameter of 169 ft. This was adapted by later Roman settlers for use as an amphitheatre. In some respects Maumbury resembles Avebury, and the fosse in both cases may have been intended to prevent animals and the ordinary public from trespassing on a spot reserved for ceremonies conducted by the privileged. The excavations now in progress at Avebury may result in strengthening a comparison between these two important prehistoric enclosures.

IN part i., vol. xxxvi., of the Transactions of the Bristol and Gloucestershire Archæological Society for 1913, Miss I. M. Roper discusses the delineation of flowers in stone in Bristol Church architecture. Such carvings appear only sporadically in Anglo-Saxon work, as at Britford, near Salisbury, and on Acca's Cross at Hexham. But they become numerous at the close of the Norman period, from A.D. 1175 to A.D. 1200. The designs are naturally conventional, but display much appreciation of botanical forms. It is possible in some churches to recognise the campanula, trefoil, and vine-leaf. The magical use of the holy herb, now known as yellow avens or herb bennet, constantly appears. Such flower ornamentation appears on the tower of St. Mary Redcliffe, A.D. 1292, and in the choir of Bristol Cathedral, A.D. 1298–1332. In the latter the oak-leaf is a common subject, and we also find the maple, beech, ivy, and hawthorn. Among herbaceous plants may be recognised the yellow water-lily, white bryony, and the buttercup. Miss Roper identifies the familiar ball-flower type of ornament with the ripe fruit of the juniper. Excellent as most of the carving is, its best efforts naturally bear no more than a coarse resemblance of nature's handiwork.

WE have received the first progress report of the Thompson-McFadden Pellagra Commission. It includes a study of the epidemiology of pellagra by Capt. Siler and Surgeon Garrison, in which it is stated that observations on the habitual use of the more common foodstuffs failed to discover any points of difference between pellagrins and non-pellagrins.

The Journal of the Royal Society of Arts for March, 1914 (vol. lxii., No. 3199) contains a paper by Prof. Bottomley on the bacterial treatment of peat. The raw peat is treated in three stages—first, the raw peat is moistened with a culture solution of the special "humating" bacteria, and the mass is kept at a constant temperature for a week or ten days; during this time the bacteria act on certain organic constituents of the peat, and gradually convert a large amount of the humic acid present into soluble humates; secondly, the "humating" bacteria having done their work are destroyed by sterilising the peat by live steam; thirdly, the sterilised peat is treated with a mixed culture of nitrogen-fixing organisms—*Azotobacter chroococcum* and *Bacillus radicicola*—and after a few days' incubation at 26° C. is ready for use. The material so obtained possesses astonishing fertilising properties, and extensive trials with satisfactory results have been carried out at Kew.

Bulletins No. 10A and 10B of the Eugenics Record Office contain a report of "the committee to study and to report on the best practical means of cutting off the defective germ plasm in the American population." The former of these discusses the scope of the committee's work, which indeed covers the whole of "negative" eugenics and extends beyond it. The first problem is, of course, to decide what is defective germ plasm and how it manifests itself in the life and character of the individual who bears it. The committee has gathered little fresh knowledge in this field, and their treatment of the questions involved is rather unsatisfactory. For example, the most conspicuous feature of their discussion on criminality is an elaborate classification of crimes, which has not the merit of being logical, since qualities such as "incorrigibility" and conditions such as "prostitution" are included in it, whereas a crime must necessarily be an act. Bulletin 10B is a more useful work, as it contains an account of the American Sterilisation Laws, and of Bills which have been brought forward in State legislatures for this end without reaching the statute-books. An excellent summary of the laws was communicated to the last Eugenics Congress by Mr. Van Wagenen, in the form of a preliminary report of the committee, but the report now under notice is much fuller, and contains, in addition to the items mentioned, a record of the legal proceedings which have arisen out of the laws.

The *Psychological Review* for March contains an interesting paper by E. K. Strong, illustrating the application of psychological experiment to problems of commercial interest. The special problem under investigation was the relative efficacy of the one-page advertisement in four months compared with two half-page advertisements every two months, and with four quarter-page advertisements every month. This problem involved the consideration of two distinct points: the effect of increase in the size of an advertisement and the effect of continued repetition of an advertisement on the reader's memory. The advertisements for the experiment were carefully chosen so that they were not likely to be seen save in the test; other suitable precautions were also taken. The 288 advertisements selected were divided by the experimenter into four sets corresponding to the four monthly issues of a magazine. The four sets were shown to the subjects at intervals of a month. One month later the subjects were tested, by their ability to select from an equal number of advertisements previously seen and unseen, as to their remembrance of what had been shown them. The writer concludes (1) that the value of space in advertising as affecting permanent impressions increases approximately as the square-root of the increase in area, (2) that when the interval of time between successive presentations is very long (a month), space used in advertising is more effective when used in a large advertisement than if presented in small advertisements repeated with greater frequency.

The twenty-seventh annual report of the Marine Biological Station at Port Erin records that the number of workers in 1913 was seventy-two, and that all the available work-places were fully utilised during the Easter vacation. Though some relief was obtained by converting part of a large apparatus-room into a laboratory for bio-chemistry, extension of the laboratory accommodation will evidently be required in the near future. Besides the usual work in the laboratory and the shore-collecting, the students attending the course during the Easter vacation had the advantage of demonstrations of oceanographic work on Prof. Herdman's S.Y. *Runa*. The work of the fish hatchery has proceeded as in previous years; more than seven and a half millions of plaice larvæ were hatched, taken out to sea, and liberated, and the difficult work of rearing young lobsters has been carried on with some success. The report records the captures (many of which have already been noticed in the columns of Nature) made during the cruise of the *Runa* in the Hebridean Sea in 1913; these include 259 species of Foraminifera, several new to Great Britain, a preliminary list of which is given by Messrs. Heron-Allen and Earland.

We have received the report of the Rugby School Natural History Society for 1913, in which the secretary takes a thoroughly optimistic view of the present position and future prospects of that body. An article on the architectural works of Robert Adam and the "Adelphi" affords much interesting reading.

According to a statement issued by the Smithsonian Institution, the nearly complete skeleton of a dwarf horned dinosaur (Ceratopsia) has been discovered recently in the Montana Cretaceous. The skull measures only 22 in. in length, against from 6 to 8, or even 9 ft., in the larger members of the group, the whole size of the new form being only about one-fourth that of the latter.

The most interesting item in vol. x., part 1, of the Records of the Indian Museum is the description by Dr. W. M. Tattersall, in an article on Indian brackish-water crustaceans of the family Mysidæ, of a new genus and species from Bombay, for which the name *Indomysis annandalei* is suggested. So distinct is the genus that its inclusion in the subfamily to which it is most nearly related involves a modification in the definition of that group. It is "distinguished by the combination of characters afforded by the unjointed antennal scale, the short entire quadrangular telson, and the form of the pleopods in the male."

An important contribution to our knowledge of the zoology of the Austro-Malay Archipelago is made by the appearance in vol. xix. of *Bijdragen Tot de Dierkunde* of the full scientific results of Dr. L. F. de Beaufort's journey in that region during the years 1909 and 1910. As we learn from the introduction, by Dr. de Beaufort, the main object of the expedition was to collect the fresh-water fauna of Buru, Ceram, Waigeu, and other islands, and thus complete, so far as possible, the work initiated by Prof. Max Weber, who was the first to collect systematically the fishes and other members of the fresh-water fauna of Sumatra, Java, Celebes, and other Sunda islands. But collecting, although not indiscriminate, was by no means restricted to the rivers and lakes, as may be seen by reference to the list of contents, which comprises ten articles by specialists, including one, with a coloured plate, on the fishes by Dr. de Beaufort, with remarks on the zoogeography of the region.

The aforesaid article by Dr. de Beaufort on the fishes of the eastern islands of the Austro-Malay Archipelago is supplemented by one in the same fasciculus on those of Celebes by Prof. Max Weber. This issue also contains the results of Dr. C. Kerbert's study of the various local forms of long-beaked echidnas of the genus Zaglossus (Proëchidna), to which reference has been made previously in Nature. It is illustrated by a plate showing the marvellous similarity between the walking pose of these strange beasts and that of a giant land-tortoise.

At the price of one penny, the London County Council has issued "A Handbook to the Collections Illustrating a Survey of the Animal Kingdom," in the Horniman Museum and Library, Forest Hill. Although the text conveys a large amount of information, it would have been better suited to its purpose if a larger use had been made of the vernacular and fewer technicalities employed. It would also have been well to avoid the misstatement (p. 58) that the lower teeth of a dog are equal in number to the upper; whilst the merest tyro in natural history ought to be aware that Sibbald's fin-whale (p. 71) does not belong to the same genus as the Greenland whale. It is, moreover, unnecessary to add to the brain-worry of students by introducing so-called orders, like Ancylopoda (p. 65), which have long since been abolished.

The *Bulletin Hydrographique* of the International Council for the Study of the Sea for the year July, 1911, to June, 1912, records the hydrographical observations carried out in the North Sea and adjacent waters during the period named. The observations do not appear to have been carried out upon as extensive a scale as in former years, and a chart of surface salinities for the North Sea is only provided for one month, viz., May, 1912. The mean surface temperatures are more fully shown in a series of charts which give the surface isotherms for periods of ten days, three charts being given for each month. A number of sections showing the conditions in the North Sea below the surface are also provided, based chiefly on Scottish and English work. The Finnish and Danish investigators contribute the results of numerous gas analyses of sea-water, the measurements given referring to the amounts of oxygen present at different depths at certain stations in the Gulf of Finland, in the Belts and Kattegat, and at the Faroes.

The fauna of the great Ringkøbing Fjord, on the west coast of Jutland, in the neighbourhood of Holmsland, forms the subject of an elaborate memoir by Dr. A. C. Johansen, published at Copenhagen in the volume entitled "Mindeskrift for Japetus Steenstrup," 1913. The subject has been treated by several previous writers, notably by Rambusch, in his "Studier over Ringkøbing Fjord," published in 1900, while a large amount of literature relating to the fisheries has appeared. Of all these sources of information the author has availed himself to the full, especial interest attaching to the physical changes recorded as having taken place between the middle of the seventeenth and the middle of the nineteenth century.

An important study in European geography was contributed to the *Bulletin international de l'Académie des Sciences de Cracovie* during 1912 by L. Sawicki, entitled "Beiträge zur Morphologie Siebenbürgens." The explanatory method is followed, and a broad view may be gained of the changes that have taken place in the eastern Carpathian mass since the coastal plain of the Pontian sea was uplifted and a consequent system of westward-running rivers was established on its slope. This system was greatly interfered with by volcanic outpourings and cone-building in the Hargitta region, and the present young gorges of the Maros and the Alt are due to the escape of water that was ponded back in a series of lakes, and thus kept for a time from flowing westward. The same author describes glacial landscapes in the Westbeskiden, where the somewhat feeble local ice has left more evidence in the way of cirques and moraine-barriers than has previously been observed.

The ninth paper by Dr. E. van Rijckevorsel on the periodicity of secondary maxima and minima in meteorological phenomena appears in No. 16 of the *Mededeelingen en Verhandelingen* of the Royal Meteorological Institute of the Netherlands. As any subsequent papers on this subject will be continued in the same publication, a brief statement of some of the results hitherto arrived at is given in the present number. In the yearly march of temperature certain small maxima were found about every ten or eleven days, which were constant in time and space. These zigzag curves ("Zacken") were also shown to exist for air-pressure, rainfall, etc., with important modifications relating to the occurrence of maxima and minima in different seasons. The author assumes that these zigzags are only special cases in a whole series of small periodical variations, and he has undertaken the laborious task of investigating these variations in detail.

IN a recent number of the *Annalen der Physik* there appears an important paper by Prof. Quincke on "Electrische Schaumwände der Materie." The subject-matter is a continuation of the work which has been done on the structure of "foam" walls and chambers, but in particular he points out an analogy between these and the electrical "dust" figures, which he regards as being due to the formation of foam chambers by electrical emanations of positively or negatively charged particles. Ordinary foam chambers made by precipitation or other methods he regards as being of two kinds: (1) those formed quickly in viscous fluids, and which may take a variety of forms, (2) those formed slowly in less viscous fluids, and which consist of globular cells connected by tubes. When the charged knob of a Leyden jar is presented to a cake of resin, he supposes that an electrical emanation of charged particles is emitted, and these particles are attracted to the plate of resin. By their impact they melt the resin locally to form an oil-like substance which solidifies around the charged particle, and thus produces a "foam" chamber with electrified walls. These chambers are rendered visible by dusting with the usual mixture of red lead and sulphur. He regards those upon which the sulphur is deposited as being similar to type (1), and those upon which the red lead settles as being similar to type (2).

NEARLY all the optically-active carbon compounds that have been prepared hitherto have been substances of relatively complex composition. The two simplest, lactic acid, $CH_3.\mathbf{C}H(OH).CO_2H$, and *sec.*-butyl alcohol, $CH_3.\mathbf{C}H(OH).C_2H_5$, contain three and four carbon atoms respectively; in each case also three of the four radicles attached to the asymmetric carbon atom **C** are compound radicles, and only one (the hydrogen atom) is simple. Special interest attaches therefore to the two simple substances, ammonium *d*- and *l*-chloroiodomethanesulphonates,

$$\mathbf{C}HClI.SO_3.ONH_4,$$

which have been prepared and separated in an optically-active form by Prof. Pope and Mr. Read (Trans. Chem. Soc., 1914, vol. cv., p. 811). In these substances three of the radicles are simple, and only one is compound; none of the four radicles contains a carbon atom, and the percentage of carbon amounts to less than 5 per cent. The two acids were separated by fractional precipitation from the ammonium salts by the addition of brucine; after reconverting into the ammonium salt the dextro-acid gave the molecular rotation $[M]_{5461}$ +43°. The active material is remarkably stable; the optical activity is not changed by boiling alone or with acids or alkalis, or by heating with water in a sealed tube to 130–150°.

Engineering and the *Engineer* for April 17 contain articles dealing with electric power supply in London. Messrs. Merz and McLellan have investigated this subject recently, and have presented a report to the London County Council. Apart from traction stations there are seventy generating stations at present in London, containing 585 engines. The report states that there are practically only two ways of effecting important economies in electricity generation in London; first, to allow the extension of eight or ten of the best existing stations, and gradually to abandon all the others; secondly, to abandon all sites in or near the metropolitan area, and to concentrate the production of electricity for all purposes well outside. The primary distribution system throughout London should be standardised. Assuming all existing stations for the supply of light and power to be in the hands of one authority, the final conclusions are that it would pay to shut them all down, sell most of the plant, and generate all energy on sites down the river. Considering only the central area, it is estimated that the saving in working costs with this scheme would be about 18 per cent., or 170,000*l.* a year.

THE editor of the new quarterly, *Isis,* devoted to the history and organisation of science, asks us to say that the annual subscription is 30 francs per annum, and not 24 francs as stated in a note in NATURE of April 9 (p. 143).

A COPY has been received of the second supplement, 1911–13, to the catalogue of Lewis's Medical and Scientific Circulating Library, 136 Gower Street, London, W.C. A classified index of subjects, with the names of those authors who have written upon them, is included.

OUR ASTRONOMICAL COLUMN.

COMET 1914*a* (KRITZINGER). — The following ephemeris of comet 1914*a* (Kritzinger) is published by Prof. Kobold in *Astronomische Nachrichten,* No. 4727:—

12h. Berlin M.T.

	R.A. (true) h. m. s.	Dec. (true) ° ′	Mag.
April 23	17 38 35	+8 45·2	9·5
24	42 30	9 40·7	
25	46 27	10 36·6	
26	50 25	11 32·7	9·4
27	54 23	12 29·0	
28	17 58 23	13 25·4	
29	18 2 24	14 21·9	
30	18 6 27	+15 18·3	9·3

THE VARIABLE 081041, −41° 3911, H.V. 3372.—Prof. E. C. Pickering communicates some interesting facts relative to the spectrum and magnitude of the star C. DM. −41° 3911, this star having previously been found by Mrs. Fleming to be peculiar, and also later independently by Miss Cannon. In identifying this object Miss Mackie has found that it is a variable, and in this paper the magnitudes are given for the period 1890 to 1912. The nature of the variation is indicated by a curve. Prof. Pickering describes the object as a very curious one. At first sight it might appear to be a variable star with a period of about twenty years, and varying from the eleventh to the fourteenth magnitude. He points out that ordinary variables of long period have a very different spectrum and undergo all their changes in less than two years. In this case the variations may prove to be irregular and to resemble those of the three stars of the class of R. Coronæ. The position of the star for 1900 is R.A. 8h. 10·8m., and declination −41° 24′, and additional observations of both its magnitude and spectrum are required to settle the peculiarity above mentioned.

THE SOLAR CONSTANT OF RADIATION.—No one interested in this subject should fail to read an address delivered before the Philosophical Society of Washing-